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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/539,313	03/30/2000	Chung-Ho Huang	LMRX-P079/P0602	7930
32986	7590	11/20/2006	EXAMINER	
IPSG, P.C. P.O. BOX 700640 SAN JOSE, CA 95170-0640			ENGLAND, DAVID E	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/539,313	Applicant(s) HUANG ET AL.	
	Examiner David E. England	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

02

DETAILED ACTION

1. Claims 1 – 9, 16 and 17 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al. U.S.

Patent No. 6553336 (hereinafter Johnson).

4. As per claim 1, Johnson teaches a computer implemented method for communicating between a computing system of a process module, and a first sensor, comprising the steps of:

5. initializing the computing system of the process module, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51);

6. initializing the first sensor, which is able to measure a first parameter in the process chamber, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51);

7. transmitting a connect message from the first sensor to the computing system of the process module, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51);

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8. transmitting a command to get reportable specification from the computing system of the process module to the first sensor, the computing system having no prior knowledge of a data type specification transmitted by the first sensor upon the transmitting the command to get the reportable specification, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51);
9. automatically transmitting, upon receiving the command to get reportable specification, a reportable specification message from the first sensor to the computing system of the process module, the reportable specification message being configured to inform the computer system of the processing module at least the data type specification transmitted by the first sensor, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51); and
10. transmitting a process related command related to the execution of an action in the process chamber from the computer system of the process module to the first sensor, (e.g., col. 15, lines 14 – 36);
11. thereafter receiving, using the computing system of the processing module and the reportable specification message received from the first sensor, sensor data from the first sensor, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, as applied to claim 1 above, and in view Kosugi et al. (6204768) (hereinafter Kosugi).

14. As per claim 2, Johnson teaches spawning within the computing system of the process module a connection monitor task;

15. spawning from the connection monitor task within the computing system of the process module a first sensor messaging task, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51);

16. transmitting an acknowledgement of the command to get reportable specification from the first sensor to the computing system of the process module, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51); but does not specifically teach transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor.

17. Kosugi teaches transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48 & col. 9, lines 18 – 29). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi with Johnson because it would be more efficient for a system to utilize the properties of an acknowledgement signal so in case of a bad transmission the sensor would know that the computing system did or did not get the signal and to retransmit the signal.

Furthermore, sending an acknowledgement message prevents the system from continually transmitting the same information, which would prevent the system from proceeding with its normal functions.

18. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson and Kosugi as applied to claims 1 & 2 above, and in further view of Sandelman et al. (6535123) (hereinafter Sandelman) and Chari et al. (6425006) (hereinafter Chari).

19. As per claim 3, Johnson teaches transmitting command to get an alarm table command from the first sensor to the computing system of the process module;

20. transmitting an acknowledgement of the command to get the alarm table from the computing system of the process module to the first sensor, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51);

21. transmitting an alarm table from the computing system of the process module to the first sensor, wherein the alarm table designates the number of alarms, alarm identification numbers, and descriptions of the alarms, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51); but does not specifically teach transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module.

22. Sandelman teaches the use of routing tables and router that are connected to sensor and other networking devices that could be interpreted as transmitting command to get an alarm table command from the first sensor to the computing system of the process module, (e.g. col. 3, lines 20 – 65 & col. 8, line 53 – col. 9, line 15);

23. transmitting an alarm table from the computing system of the process module to the first sensor, (e.g. col. 3, lines 20 – 65 & col. 8, line 53 – col. 9, line 15). It would be obvious to one skilled in the art at the time the invention was made to combine Sandelman with Johnson

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because it is common knowledge that when a new router is installed and turned on, it requests from other networking devices a routing table so to update its table and route information so to act as an interface to at least one of the sensors that would be connected to it.

24. Sandelman does not specifically teach transmitting an acknowledgement of the command to get the alarm table from the computing system of the process module to the first sensor;

25. transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module. Kosugi teaches transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module, (e.g. col. 8, lines 28 – 48). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi with the combine system of Johnson and Sandelman because if the computing system and the first sensor could not acknowledge each others transmissions the system could accumulate transmission errors and improper updating of the measurements that the sensor detects. Chari teaches wherein the alarm table designates the number of alarms, alarm identification numbers, and descriptions of the alarms, (e.g. col. 4, lines 23 – 38). It would be obvious to one skilled in the art at the time the invention was made to combine Chari with the combine system of Johnson, Kosugi and Sandelman because it allows the user to view the alert log file and keep track of each type of alert and when they occurred.

26. Claims 4 – 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, Sandelman, Kosugi and Chari as applied to claims 1 – 3 above, and in further view of Halpern (5301122).

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27. As per claim 4, Johnson, Sandelman and Chari do not specifically teach transmitting command to get time and initialization data from the first sensor to the computing system of the process module;

28. transmitting time and initialization data from the computing system of the process module to the first sensor. Halpern teaches transmitting command to get time and initialization data from the first sensor to the computing system of the process module, (e.g. col. 11, lines 13 – 49);

29. transmitting time and initialization data from the computing system of the process module to the first sensor, (e.g. col. 11, lines 13 – 49). It would be obvious to one skilled in the art at the time the invention was made to combine Halpern with the combine system of Johnson, Sandelman and Chari because of similar reasons stated above and it would be more efficient in the updating process to have time and initialization data so when the computing system does attempt to update its information the computing system can compare the two different times and initialization data and to determine which ones are the latest versions of information to save.

30. Halpern does not specifically teach transmitting an acknowledgement of the command to get time and initialization data from the computing system of the process module to the first sensor;

31. transmitting an acknowledgement of the time and initialization data from the first sensor to the computing system of the process module. Kosugi teaches transmitting an acknowledgement of the command to get time and initialization data from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48), and transmitting an

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acknowledgement of the time and initialization data from the first sensor to the computing system of the process module, (e.g. col. 8, lines 28 – 48). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi with the combine system of Johnson, Sandelman, Halpern and Chari because of similar reasons as stated above.

32. As per claim 5, Johnson teaches transmitting a process related command related to the execution of an action in the process chamber from the computing system of the process module to the first sensor, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51);

33. executing the action in the process chamber, wherein said action relates to the processing of semiconductor related devices, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51); and

34. transmitting an acknowledgement of the process related command from the first sensor to the computing system of the process module, (e.g., col. 6, lines 3 – 53 & col. 12, lines 8 – 51).

35. Claims 6 – 9 are rejected for similar reasons as stated above.

36. As per claim 16, as closely interpreted by the Examiner, Johnson teaches the reportable specification also provides possible range of data and frequency of data that will be provided from the sensor, (e.g., col. 16, line 62 – col. 17, line 48).

37. Halpern teaches the reportable specification also provides possible frequency of data of data that will be provided from the sensor, (e.g., col. 3, lines 42 – 67). It would be obvious to one skilled in the art at the time the invention was made to combine Halpern with Johnson because utilizing a range of data instead of an exact number allows a margin of error in case the sensor

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devices are not calibrated correctly. Furthermore determining the frequency of when data is updated allow one to determine the freshness of the data and whether or not the reading of the sensor is as close to real time as possible, giving the most accurate reading at a specific time as possible.

38. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, Sandelman, Kosugi, Chari and Halpern as applied to claims 1 – 3 above, and in further view of Steen, III et al. (6510350) (hereinafter Steen).

39. As per claim 17, as closely interpreted by the Examiner, Johnson, Sandelman, Kosugi, Chari and Halpern do not specifically teach the reportable specification further provides whether the data needs to be requested from the sensor or will be automatically sent. Steen teaches the reportable specification further provides whether the data needs to be requested from the sensor or will be automatically sent, (e.g., col. 12, line 57 – col. 13, line 31). It would be obvious to one skilled in the art at the time the invention was made to combine Steen with the combine system of Johnson, Sandelman, Kosugi, Chari and Halpern since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Response to Arguments

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40. Applicant's arguments filed 08/29/2006 have been fully considered but they are not persuasive.

41. **In the Remarks**, Applicant argues in substance that Johnson does not teach that the first sensor be sent a process related command related to the execution of an action in the process chamber from the computing system of the process module to the first sensor. Applicant goes to further state that Johnson teaches that the transducer control module is a slave device and does not initiate communication with the transducers (col. 15, lines 14 – 18). Furthermore, Johnson teaches the monitoring system is typically a computer system implemented with software application to receives, stores, and analyzes event and status information from the tr4ansducer control module.

42. As to the first Remark, Examiner would like to draw the Applicant's attention to the area they have cited for their remarks. It is true that the control module is a slave module, but there is no claim language that states that the Applicant's claimed invention **must** initiate communication with the sensor in their new limitation. Johnson teaches that "When a transducer reports the condition of an input, the control module transmits an acknowledge message that may include a request to update an output channel or return additional status information. The Applicant does not claim what the process related command could be nor the "action" that is to be taken. This, along with the Applicant not specifically claiming that the sensor initiates the command to transmit a process related command relating to the execution of an "action", leaves Johnson to read on the claim language as stated above. Johnson does transmit a "process related command related to the execution of an action in the process chamber, "updating an output channel or return additional status information", that could be used in a process related command.

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43. Applicant's other Remarks fall under the same concept as described above and is therefore, already addressed.

Conclusion

44. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

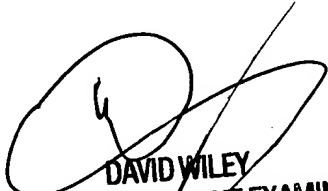
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. England
Examiner
Art Unit 2143

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